

REMARKS

To implement a previous response to a Restriction Requirement, claims 10-14 are canceled. Claims 1-3, 5-6, and 9 are amended, and claims 17-18 are newly added. Support for the claim amendments and newly added claims can be found at least in paragraphs [0051], [0053] – [0054], and [0061] of the specification.

The amended claims are allowable because (1) the metal alloy billet in Carden is placed directly in the sleeve of a die-casting machine, (2) the molten-metal pack in Matsuura includes only a single upwardly-facing opening, and (3) the molten-metal pack in Matsuura is compressed and deformed when displaced by a plunger.

Neither of the cited references teaches the claim requirements, which make the amended claims not obvious, and allowable. Applicant solicits a Notice of Allowance.

I. Specification and Claim Objections

The specification is amended to include headings in accordance 37 C.F.R. § 1.77(b). Therefore, applicant requests acceptance of the specification.

Claims 1, 3, and 5 are amended to correct the various informalities identified in the Office Action. Therefore, applicant requests allowance of these claims.

II. §103 Rejections

The rejections under 35 U.S.C. § 103 should be withdrawn because (1) Carden does not disclose the container as required by the amended claims, and (2) Matsuura does not make up for the deficiencies of Carden.

A. Carden

Claims 1-5 and 17 require “introducing . . . an alloy into a container,” the alloy reaching “a semi-solid state in the container,” and “a shot-sleeve of a die-casting machine” “supporting the container.” Similarly, claims 6-9 and 18

require a “container being configured to be supported in a shot sleeve of a die-casting machine.” All of the amended claims also require the container having “an elongated body” and “a closure member.” But, Carden does not disclose any such container and thus, is unlike the claimed invention.

Instead, Carden discloses placing a self-supporting semi-solid billet 1 directly into a shot sleeve 5 of a die-casting machine. See Carden, FIG. 3 and col. 4, ln. 66 – col. 5, ln. 8. The billet 1 is not placed in any type of container before being placed in the sleeve 5.

The Office Action appears to equate the sleeve 5 of the die-casting machine in Carden with the “container” of the amended claims. However, this reading of Carden is not consistent with the claims as amended. Claims 1-9 and 17-18 require that the “container” is “configured to be supported in a shot sleeve of a die-casting machine.” The container cannot be the shot sleeve itself.

B. Matsuura

Matsuura does not make up for the deficiencies of Carden discussed above. For example, the molten-metal pack 20 in Matsuura does not teach the requirements of the “container” in the amended claims.

The “container” in claims 1-9 and 17-18 includes “a mouth” and “an opening” at opposite ends of “an elongated body.” The “container” also requires “a closure member” that is “displaceable by a plunger of a die-casting machine along an interior volume of the body . . . to displace” an alloy “through the mouth at the first end of the body.” In the amended claims, the container is preserved even when the alloy is displaced therethrough. But, Matsuura does not disclose these requirements of a container and thus, is unlike the claimed invention.

Instead, the molten-metal pack 20 in Matsuura includes a cylindrically shaped member 21 with disks 22 closing each end and a single upwardly-facing opening 21a for receiving molten metal 14. See Matsuura, FIG. 7. When the molten-metal pack 20 is placed in a plunger sleeve 4, a plunger chip 9 compresses and deforms the molten-metal pack 20 so that the molten metal 14 in

the pack 20 is injected into a cavity 3. See Matsuura, col. 7, ll. 21-24. This is unlike the “container” of the amended claims.

C. Claims 1-9 and 17-18 are not obvious

For at least the reasons as explained above, Matsuura does not make up for the deficiencies of Carden. Therefore, applicant requests allowance of claims 1-9 and 17-18.

III. Closing Remarks

For the foregoing reasons, applicant submits that the subject application is in condition for allowance and respectfully requests allowance of the application. Should the Examiner be of the opinion that a telephone conference would expedite the prosecution hereof, the Examiner is respectfully requested to call the undersigned at the below-listed number.

The Commissioner is hereby authorized to charge any additional fee which may be required for this application under 37 C.F.R. §§ 1.16-1.18, including but not limited to the issue fee, or credit any overpayment, to Deposit Account No. 23-0920. Should no proper amount be enclosed herewith, such as a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 23-0920.

Respectfully submitted,

Dated: April 27, 2010

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